

CLAIMS

1. An isolated polynucleotide comprising a transcript of an Immunoglobulin (Ig) gene, the polynucleotide lacking V region sequences and comprising a constant (C) domain and joining (J) region sequences, and a 5' intronic J sequence upstream of the J region sequence including an in-frame methionine codon.

2. The polynucleotide according to claim 1, encoded by an Ig heavy chain gene.

3. The polynucleotide according to claim 1, encoded by an Ig μ heavy chain gene.

4. The polynucleotide according to claim 2, comprising a truncated μ heavy chain having SEQ ID NO:1; SEQ ID NO:3; SEQ ID NO:4. SEQ ID NO:5; or SEQ ID NO:6.

5. The polynucleotide according to claim 2, encoding a peptide comprising SEQ ID NO:2.

6. An antisense DNA molecule to the isolated polynucleotide according to claim 1.

7. The antisense DNA molecule according to claim 6, wherein the polynucleotide comprises SEQ ID NO:1; SEQ ID NO:3; SEQ ID NO:4. SEQ ID NO:5; SEQ ID NO:6 or a nucleic acid sequence that encodes a peptide comprising SEQ ID NO:2.

8. An expression vector comprising the polynucleotide according to claim 1.

9. The expression vector according to claim 8, wherein the polynucleotide comprises SEQ ID NO:1; SEQ ID NO:3; SEQ ID NO:4. SEQ ID NO:5; SEQ ID NO:6 or a nucleic acid sequence that encodes a peptide comprising SEQ ID NO:2.

10. A host cell comprising the vector according to claim 8, wherein the cell is mammalian.

11. The host cell according to claim 10, wherein the cell is a transfected mesenchymal human cell.

12. A polypeptide encoded by the polynucleotide according to claim 1.

13. The polypeptide according to claim 12, wherein the polynucleotide comprises SEQ ID NO:1; SEQ ID NO:3; SEQ ID NO:4. SEQ ID NO:5; SEQ ID NO:6 or a nucleic acid sequence that encodes a peptide comprising SEQ ID NO:2.

5 14. An antibody raised against the polypeptide according to claim 12.

15. The antibody according to claim 15, wherein the polypeptide is encoded by a polynucleotide comprising SEQ ID NO:1; SEQ ID NO:3; SEQ ID NO:4. SEQ ID NO:5; SEQ ID NO:6 or a nucleic acid sequence that encodes a peptide comprising SEQ ID NO:2.

10 16. A method of inducing mesenchymal intercellular interactions comprising the step of administering to a subject in need thereof transfected mesenchymal human cells comprising a polynucleotide comprising a transcript of an Immunoglobulin (Ig) gene or T cell receptor (TCR), the polynucleotide comprising a constant (C) domain, joining (J) region sequences, and a 5' intronic J sequence upstream of the J region sequence including an in-frame methionine codon, the polynucleotide lacking V region sequences, wherein an amount effective to induce mesenchymal intercellular interactions.

15 17. The method according to claim 16, wherein the polynucleotide comprises any one of SEQ ID NOS:1; 3-6 or a nucleic acid sequence that encodes a peptide comprising any one of SEQ ID NO:2 or 7-42.

20 18. The method according to claim 16, wherein the cells are of an autologous or allogeneic origin.

25 19. The method according to claim 16, wherein the method induces wound healing.

20. The method according to claim 22, wherein the subject has had a bone marrow transplant or chemotherapy and the method induces hemopoiesis.

30 21. A method of suppressing mesenchymal intercellular interactions comprising the step of administering to a subject in need thereof transfected mesenchymal human cells comprising a DNA molecule according to claim 11, in an amount effective to suppress mesenchymal intercellular interactions.

22. The method according to claim 21, wherein the cells are of an autologous or allogeneic origin.

23. The method according to claim 21, wherein the method suppresses cancer.

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24. A method of suppressing mesenchymal intercellular interactions comprising administering to a subject in need thereof transfected mesenchymal human cells comprising an antisense polynucleotide comprising at least part of a transcript of an Immunoglobulin (Ig) gene or T cell receptor (TCR), the transcript lacking V region sequences and comprising a constant (C) domain, joining (J) region sequences, and a 5' intronic J sequence upstream of the J region sequence including an in-frame methionine codon, the antisense polynucleotide administered in an amount effective to induce mesenchymal intercellular interactions.

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25. The method according to claim 24, wherein the polynucleotide is an antisense to at least part of a transcript comprising anyone of SEQ ID NOS:1; 3-6 or a nucleic acid sequence that encodes a peptide comprising any one of SEQ ID NO:2 or 7-42.

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26. The method according to claim 24, wherein the method suppresses cancer.